WHAT IS CLAIMED IS:

1.(Amended) A continuous speech recognition apparatus which uses, as a recognition unit, a sub-word determined depending on an adjacent sub-word and which uses context dependent acoustic models dependent on sub-word context to recognize a continuous input speech, comprising:

~~an acoustic analysis section (1) analyzing the input speech to obtain feature parameter time series;~~

a word lexicon (4) in which each of words included in vocabulary is stored in a form of a sub-word network or in a sub-word tree structure;

a language model storage unit (5) in which language models representing information regarding connection between words is stored;

a context dependent acoustic model storage unit (3) in which the context dependent acoustic models are stored in a form of sub-word state trees in each of which state sequences of a plurality of sub-word models of the context dependent acoustic models are organized in a tree structure;

a matching unit (2) developing hypotheses of sub-words by referencing the sub-word state tree representing the context dependent acoustic models, the word lexicon (4) and the language models, and performing matching between ~~the~~ feature parameters ~~time series~~ of inputted speech and the

developed hypotheses so as to output~~, as a word lattice,~~ word information including a word, an accumulated score and a beginning start frame with respect to a hypothesis representing a word end portion; and

a search unit (8) for searching the word ~~lattice~~ information to generate recognition results.

2. The continuous speech recognition apparatus as defined in Claim 1, wherein

the context dependent acoustic models stored in the context dependent acoustic model storage unit (3) are context dependent acoustic models in which a center sub-word depends on sub-words preceding and succeeding the center sub-word respectively, and the state sequences of sub-word models having identical preceding sub-words and identical center sub-words are organized in a tree structure.

3. The continuous speech recognition apparatus as defined in Claim 2, wherein

the context dependent acoustic models are state sharing models in which a plurality of sub-word models share states.

4. The continuous speech recognition apparatus as defined in Claim 1, wherein

when developing the hypotheses by referencing the sub-word state tree, the matching unit (2) puts a flag on states connectable to each other in the sub-word state trees that represent the hypotheses, by using information on connectable sub-words obtained from the word lexicon (4) and the language model.

5.(Amended) The continuous speech recognition apparatus as defined in Claim 1, wherein

during a matching operation, the matching unit (2) calculates scores of the developed hypotheses based on the feature parameters ~~time series~~, and prunes the hypotheses in conformity to criteria including a threshold value of the scores or a quantity of hypotheses.

6.(Amended) A continuous speech recognition method which uses, as a recognition unit, a sub-word determined depending on an adjacent sub-word and which uses context dependent acoustic models dependent on sub-word context to recognize a continuous input speech, comprising:

~~analyzing the input speech to obtain feature parameter time series by an acoustic analysis section;~~

developing hypotheses of sub-words by referencing a sub-word state tree formed by placing state sequences of the context dependent acoustic models in a tree structure, a

word lexicon describing each of words included in vocabulary in a form of a sub-word network or in a sub-word tree structure, and a language model representing information regarding connection between words, and performing matching between ~~the~~ feature parameters ~~time series~~ of inputted speech and the developed hypotheses so as to generate~~, as a word lattice,~~ word information including a word, an accumulated score and a beginning start frame with respect to a hypothesis regarding a word end portion, by a matching unit; and

searching the word ~~lattice~~ information to generate recognition results by a search unit.

7.(Amended) A continuous speech recognition program that makes a computer function as ~~the acoustic analysis section (1),~~ the word lexicon (4), the language model storage unit (5), the context dependent acoustic model storage unit (3), the matching unit (2) and the search unit (8) as recited in Claim 1.

8. A program recording medium readable by computer, having the continuous speech recognition program as defined in Claim 7 stored therein.